

REMARKS

Claims 7, 8, 10 and 13-23 remain in the application. All of the claims have been finally rejected on new grounds under Section 103. Although the Examiner has previously applied the Baker reference (U.S. 5,555,151), the present rejection is based on Carcia (3,740,569) in view of Baker. Carcia is prior art consistent with applicant's description thereof and, as acknowledged in the Final Office Action, this reference fails to disclose a regulating circuit.

It is noted, however, that the output terminals 14-17 of the Carcia reference (referred to by the Examiner as circuit modules) each provide a DC operating voltage while the secondary reference Baker is relied upon for disclosing a regulating circuit. According to the rejection, the regulating circuit of Baker is to be combined with the DC voltage terminals of Carcia to meet the terms of independent claim 7. However, for reasons which follow, this is not possible.

First, it is clear from the Baker disclosure that the components disclosed in the Baker reference do not relate to regulation. Rather, the subject components are used to generate a signal which is compared to "a predetermined threshold voltage" [col. 5, line15] and a comparator output is "generated when the input ... exceeds the threshold 156, indicating that not all of the phases of the two sources are in synchronism." See col. 5, lines 16-23. As stated at lines 19-23, the threshold corresponds to the maximum acceptable difference in phase displacement, frequency and magnitude between the two sources. That is, the two sources, as stated at col. 4, lines 49-60 are waveforms, and Baker rectifies these in order to perform the comparator function in relation to differences in phase displacement, frequency and magnitude between the two waveforms. Further, as stated at col. 4, lines 63-67, the comparison means 134 "generates a power transfer inhibit signal ... when the error signal exceeds the threshold." This is not the same as what is required by claim 7, i.e., providing a

"regulating circuit configured to control voltage output from the first power supply component so that deviation exceeding the maximum permissible voltage level is reduced or prevented."

Nor is it possible to combine the disclosure of Baker with that of Carcia, as the sense circuit of Baker, being designed for transfer of poly-phase electric power to a target source (col.

3, lines 22-40) rectifies the AC waveforms of both a present source and a target source in order to determine whether differences in the two waveforms exceed predetermined values. This is not the same as reducing or preventing a deviation from exceeding a maximum voltage level. In fact, the Baker reference does not disclose a regulating circuit to “control voltage output” and thereby reduce or prevent a deviation from exceeding a maximum permissible voltage level.

The rejection has confused or interchanged Baker’s threshold level, associated with a comparator function, with applicants’ prevention of deviations beyond a predetermined value. Further, the circuitry of Baker could not perform the claimed function for the terminals of the Carcia reference because the voltages considered in the Baker reference are not DC voltages as required by the terminals of Carcia.

Although the Examiner has disagreed, the Baker reference has been applied against the claims while it relates to a power supply circuit which addresses an entirely different problem from that subject matter to which the claims are expressly directed. As noted at col. 3, lines 13-22, cited by the Examiner, in the context of no-break power transfer, the Baker reference deals with situations in which “any phase of a target source of electric power differs from the associated phase of the present source in magnitude, phase relationship, or frequency ...”

Neither the Carcia reference nor the applicant is at all concerned with such disparity or a removal of such disparity between a present source and a target source. It is only in that context that the Baker reference discloses generation of “a synchronization error signal in response to any ... differing in magnitude, phase relationship, or frequency ...”

In contrast, the invention presented in claim 7 is directed to a communication system of the type including a plurality of communications circuit modules, e.g., in a computer, with “at least one of the modules being compliant with a maximum permissible voltage level” such as required by the SELV standard. The invention provides a regulating circuit “to control output of at least a first of the power supply components with respect to the maximum permissible voltage level during operation of the communication system.” This cannot be accomplished with any circuitry disclosed in the Baker reference. Moreover, the claimed regulating circuit is configured “to control voltage output from the first power supply component so that deviation exceeding the maximum permissible voltage level is reduced or prevented.” The Baker reference provides no disclosure relating to this functionality.

For similar reasons the subject matter of each other independent claim 15 and 22 is also allowable. For example, claim 15 requires a plurality of communications circuit modules each operable at one or more of a plurality of voltages. At least one of the modules is “compliant with a maximum permissible voltage differential according to the Safety Extra Low Voltage (SELV) standard as defined in the IEC 60950 standard of the International Electrotechnical Commission ...” A power supply circuit ... [includes] a regulating circuit for regulating voltage output from a first of the power supply components relative to the SELV standard ...” Specifically, “the regulating circuit is connected between outputs of power supply components between which the maximum voltage differential occurs during normal operation of the system ...”

The method of operating a power supply circuit in a communication system (claim 22) requires a plurality of power supply components for simultaneously supplying modules of the communication system with multiple voltage levels. A regulating circuit is connected to outputs of at least the first power supply component and one of the other power supply components between which a maximum voltage differential occurs during normal operation of the communication system. The regulating circuit is adapted to reduce or eliminate deviation of the maximum voltage differential beyond a reference voltage value. The method compares the maximum voltage differential with the reference voltage value and adjusts voltage output from one of the power supply components when the maximum voltage differential exceeds the reference voltage value.

The above-described features do not at all relate to no-break power transfers between different sources of electric power and the claims cannot be read upon such function or structure. The prior art does not relate to controlling voltage levels during simultaneous provision of multiple voltage levels in a communication system.

Each of the dependent claims further defines a patentable combination which further distinguishes over the prior art. For these reasons it is submitted that none of the art of record can compensate for the deficiencies of the Baker reference with respect to the claimed subject matter.

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Conclusion

The claims have been shown to be distinguished over the art of record and the application is in condition for allowance. The Examiner is now requested to pass this application to issuance. The Commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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